# Graduate Medical Education

GRADUATE MEDICAL EDUCATION has come to represent a significant segment of both medical education and medical practice in the United States. It is estimated that interns, residents and clinical fellows, commonly known as house staff or house officers, now render something like 25 percent of all the medical care which is given. They are considerably more numerous than medical students and they make up a substantial proportion of the total number of physicians who provide patient care. A large portion of the resources available for medical care is consumed by these programs and their cost is beginning to be of some concern to the public.

It is during his graduate medical education that a young physician learns of the capabilities and limitations of modern medical science by precept and by experience. As an undergraduate medical student he is an observer; as an intern, resident or clinical fellow he participates in patient care, assuming gradually greater responsibility; and then in active practice he finally has the full responsibility. Thus graduate medical education is a transitional period between the role of observer and the full responsibility of active practice. As an aftermath of the Flexner Report in 1910 and the subsequent growth and development of science in medical education, specialties are proliferating (general practice and family practice are now regarded as specialties), and graduate medical education is generally carried on within the framework of the specialties, and training is pointed toward the requirements of the specialty boards for certification in the specialty.

In the last decade a number of forces have appeared which are beginning to complicate things in graduate medical education. There has been a reaction against too much specialization in medicine and a resurgence of professional and public interest in primary care and family practice. A maldistribution of physicians, both geographically and by specialty, has raised serious questions concerning what should be the goals of graduate medical education. There are complaints that there are too many specialists, particularly in those specialties where the fees are higher, and that this over-supply and under-use tends to keep these fees up. There is a revolt against the use of the poor as clinic patients and "teaching material" anywhere in medical education. One level of high quality care for all is a clear intent of the law. This has given rise to many problems in the house officer training situation which are at present unresolved. But by far the most important new force in graduate medical education is rising costs and how they are to be paid. Interns and residents have been very aggressive and very successful in forcing improvements in their pay and working conditions. In California these salaries are now in the order of $9,000 to $18,000 a year. This, coupled with the fact that graduate medical education requires that many specialties and expensive specialized facilities be available in a high quality program if there is to be an acceptable learning experience, now has placed the cost of a good program beyond what can be supported by traditional means. A serious situation exists.

The problems of graduate medical education are thus not simple. How they are dealt with now will no doubt determine the quality of the scientific and technologic medical care Americans will receive in the years ahead, since this can only be as good as the training their physicians have received. At the present moment it seems as though there is "no way" to deal with many of these problems. But some sort of start should be made. It is therefore suggested that the time has come for certain issues to be faced squarely:

¶ *Graduate medical education should take place only in those settings where a certain critical mass of specialties and specialized facilities are to be found,* since it is essential that all physi-

cians learn the capabilities and limitations of modern medical science and technology during this period of their preparation for practice whether it will be in such centers or elsewhere. Decentralized on-the-job training in limited practice situations cannot be substituted for active participation in broadly based learning experience with scientific medicine at its best.

¶ *The matter of who is responsible and who is rendering services to an individual patient in the graduate medical education setting needs to be clarified.* Graduate medical education is that segment of a physician's training between medical school where he has no responsibility and active practice where he has full responsibility. During this period the young physician must assume increasing decision making and practice responsibility as part of his training, and in so doing it turns out that he actually delivers approximately 25 percent of all the medical care given in the nation. Yet just who to be held responsible to the patient for what or who should be paid for what is not as clear as it should be.

¶ *The need for better distribution of physicians among the specialties including family practice must be satisfied.* Here the needs of a major medical center for a distribution of specialties for a balanced program of graduate medical education and the tertiary care the above render are quite different from the distribution or balance which is desirable in an urban or rural practice situation where the emphasis is on primary and secondary care. This disparity is to a considerable extent responsible for the present maldistribution of specialties in practice and it should have considerably more study and attention.

¶ *There is a clear need for more realistic financing of graduate medical education.* The costs are substantial and are increasing. They can no longer be borne by the sick patient who happens to be in a hospital with a fully developed house staff. So far the private sector has found no adequate solution for this; and if it does not, there will be increased public funding, and with it increased bureaucratic and political control of what is taught, where it is taught, to whom it is taught and all that this entails.

The enormity and implications of all these problems in graduate medical education are not generally realized, nor is their complexity, nor is the awkwardness of the organizational mechanisms we have for dealing with them. Quite recently a Liaison Committee on Graduate Medical Education has come into being, sponsored by the American Medical Association, the American Board of Medical Specialties, the Association of American Medical Colleges, the Council on Medical Specialty Societies and the American Hospital Association. It has representation from each of these organizations and one representative from the public and one from the federal government. Its thrust is to be in the field of accreditation of graduate medical education and specialty training where the problems are great and it is possible that such a liaison committee can be effective.

But the sad truth is that there is as yet no recognizable mechanism to deal constructively with the problems of graduate medical education herein described, from the standpoint of the needs of practice situations, of educational institutions, or of the growing public concern with the educational product, and with the need for adequate resources, financial and otherwise, for graduate medical education.

The initiative is up for grabs.

—MSMW

# Antimicrobial Drugs and Adverse Drug Reactions

TWENTY TO FORTY PERCENT OF PATIENTS treated in hospitals receive at least one antibiotic, and a significant proportion of them receive two or more. The frequency of use of antimicrobials in the treatment outside hospitals probably is less, but these agents are now and will continue to represent a large proportion of the drugs prescribed by physicians.

An increasing number of new antimicrobial drugs have become available yearly and are added annually to the large number already available. This number is magnified by the variety of different products with different names